



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XC506]

Draft 2022 Marine Mammal Stock Assessment Reports

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; request for comments and new information.

SUMMARY: NMFS reviewed the Alaska, Atlantic, and Pacific regional marine mammal stock assessment reports (SARs) in accordance with the Marine Mammal Protection Act (MMPA). SARs for marine mammals in the Alaska, Atlantic, and Pacific regions were revised according to new information. NMFS solicits public comments on the draft 2022 SARs. NMFS is also requesting new information for strategic stocks that were not updated in 2022.

DATES: Comments must be received by *[insert date 90 days after date of publication in the FEDERAL REGISTER]*.

ADDRESSES: The 2022 draft SARs are available in electronic form via the Internet at <https://www.fisheries.noaa.gov/national/marine-mammal-protection/draft-marine-mammal-stock-assessment-reports>.

Copies of the Alaska Regional SARs may be requested from Nancy Young, Alaska Fisheries Science Center; copies of the Atlantic, Gulf of Mexico, and Caribbean Regional SARs may be requested from Elizabeth Josephson, Northeast Fisheries Science Center; and copies of the Pacific Regional SARs may be requested from Jim Carretta, Southwest Fisheries Science Center (see “**FOR FURTHER INFORMATION CONTACT**” below).

You may submit comments on this document, identified by NOAA-NMFS-2022-0130, by any of the following methods:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to <https://www.regulations.gov> and enter NOAA-NMFS-2022-0130 in the Search box. Click on the “Comment” icon, complete the required fields, and enter or attach your comments.
- *Mail:* Submit written comments to Dr. Zachary Schakner, Protected Species Science Branch, Office of Science and Technology, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3226, Attn: Stock Assessments

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on www.regulations.gov without change. All personal identifying information (*e.g.*, name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter "N/A" in the required fields if you wish to remain anonymous).

FOR FURTHER INFORMATION CONTACT: Zachary Schakner, Office of Science and Technology, 301-427-8106, Zachary.Schakner@noaa.gov; Nancy Young, 206-526-4297, Nancy.Young@noaa.gov, regarding Alaska regional stock assessments; Elizabeth Josephson, 508-495-2362, Elizabeth.Josephson@noaa.gov, regarding Atlantic, Gulf of Mexico, and Caribbean regional stock assessments; or Jim Carretta, 858-546-7171, Jim.Carretta@noaa.gov, regarding Pacific regional stock assessments.

SUPPLEMENTARY INFORMATION:

Background

Section 117 of the MMPA (16 U.S.C. 1361 *et seq.*) requires NMFS and the U.S. Fish and Wildlife Service (FWS) to prepare stock assessments for each stock of marine mammals occurring in waters under the jurisdiction of the United States, including the U.S. Exclusive Economic Zone (EEZ). These stock assessment reports (SARs) must contain information regarding the distribution and abundance of the stock, population growth rates and trends, estimates of annual human-caused mortality and serious injury (M/SI) from all sources, descriptions of the fisheries with which the stock interacts, and the status of the stock. Initial SARs were completed in 1995.

The MMPA requires NMFS and FWS to review the SARs at least annually for strategic stocks and stocks for which significant new information is available, and at least once every 3 years for non-strategic stocks. The term “strategic stock” means a marine mammal stock: (A) for which the level of direct human-caused mortality exceeds the potential biological removal level or PBR (defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population); (B) which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the Endangered Species Act (ESA) within the foreseeable future; or (C) which is listed as a threatened species or endangered species under the ESA or is designated as depleted under the MMPA. NMFS and FWS are required to revise a SAR if the review indicates that the status of the stock has changed or can be more accurately determined.

In order to ensure that marine mammal SARs constitute the best scientific information available, the updated SARs under NMFS’ jurisdiction are peer-reviewed within NMFS Science Centers and by members of three regional independent Scientific Review Groups established under the MMPA to independently advise NMFS and the FWS. As a result of time involved in the assessment of new scientific information,

revision, and peer-review of the SARs, the period covered by the 2022 draft SARs is 2016 through 2020. While this represents a time lag, the extensive peer review process ensures the SARs are based upon the best scientific information available.

NMFS reviewed the status of all marine mammal strategic stocks and considered whether significant new information was available for all other stocks under NMFS' jurisdiction. As a result of this review, NMFS revised reports for 25 stocks in the Alaska, Atlantic, and Pacific regions to incorporate new information. The 2022 revisions to the SARs include proposed revisions to stock structures, updated or revised human-caused M/SI estimates, and updated abundance estimates. Additionally, revised stock structure is proposed for all North Pacific humpback whale stocks and Southeast Alaska harbor porpoises following the process outlined in NMFS' procedural directive (NMFS 2019). Proposed revisions to stock structure and the addition of new reports resulted in five newly designated strategic stocks and three newly designated non-strategic stocks. No stocks changed in status from "non-strategic" to "strategic." Eight Western North Atlantic common bottlenose dolphin stocks changed from "strategic" status to "non-strategic."

NMFS solicits public comments on the draft 2022 SARs. To ensure NMFS is aware of new information relevant to all strategic stocks, NMFS also requests new information for strategic stocks that were not updated in 2022. Specifically, new relevant information could include peer-reviewed information on human-caused M/SI, fishery interactions, abundance, distribution, population structure, habitat concerns, and other information on emerging concerns for strategic stocks that could be incorporated into the SARs.

North Pacific Humpback Whale Stocks

The three existing North Pacific humpback whale stocks (Central North Pacific and Western North Pacific stocks contained in the Alaska regional SAR and the

CA/OR/WA stock contained in the Pacific regional SAR) are proposed to be replaced by five stocks to better align with the 2016 listing of humpback whale distinct population segments (DPSs) under the Endangered Species Act (ESA, 81 FR 62260, September 8, 2016). While the criteria for determining stocks under the MMPA and DPSs under the ESA are different, these units are both based on the best scientific information available and consider population structure, which, in some cases, may result in the units being equivalent in practice.

In revising North Pacific humpback whale stock structure, NMFS followed the process outlined in its procedural directive 02-204-03: Reviewing and Designating Stocks and Issuing Stock Assessment Reports under the Marine Mammal Protection Act (NMFS 2019). NMFS evaluated multiple lines of evidence, including genetics and movement data, to identify three demographically independent populations (DIPs), as well as four “units” that may contain one or more DIPs (Martien *et al.* 2021, Taylor *et al.* 2021, Wade *et al.* 2021, Oleson *et al.* 2022). From these DIPs and units, NMFS proposes designating five new humpback whale stocks in the North Pacific: the Western North Pacific, Hawai‘i, and Mexico-North Pacific stocks contained in the Alaska regional SAR; and the Mainland Mexico-CA-OR-WA and the Central America/Southern Mexico-CA-OR-WA stocks contained in the Pacific regional SAR.

Western North Pacific humpback whale stock

NMFS evaluated the ESA-listed Western North Pacific (WNP) DPS as a potential stock under the MMPA and found strong lines of evidence (movements and genetics) that it is composed of multiple DIPs (Oleson *et al.* 2022). At present, two units can be defined: the Philippines/Okinawa-Northern Pacific unit that winters near the Philippines and Okinawa and summers primarily off the Russian mainland, and the Mariana Islands/Ogasawara-Northern Pacific unit that winters off the Mariana Archipelago and other unidentified areas and summers off the Commander Islands and other feeding

grounds off the Russian coast in the Bering Sea. It is possible that these units contain multiple DIPs, but the available data and analyses are not sufficient to evaluate that possibility at this time. Given the lack of data on distribution, movement, and abundance of these two units, there is no clear conservation benefit to splitting the humpback whales that belong to the WNP DPS into two MMPA stocks. Thus, the humpback whales that belong to the WNP DPS listed under the ESA are proposed to comprise a single stock under the MMPA.

The proposed WNP humpback whale stock (contained in the Alaska SAR), contains the WNP DPS, which is listed as endangered under the ESA (81 FR 62259, September 2016, Oleson *et al.* 2022) and would, therefore, be considered a strategic and depleted stock under the MMPA. The abundance estimate was derived from a reanalysis of the 2004-2006 Structure of Populations, Levels of Abundance and Status of Humpback Whales in the North Pacific (SPLASH) data (Wade 2021). The annual human-caused M/SI is estimated for the entire stock (4.46, which exceeds the calculated stock-wide PBR of 3.4), as well as for the portion of the stock that spends time in U.S. waters (0.06, which is below the calculated U.S.-only PBR of 0.2); however, observers have not been assigned to several U.S. fisheries that are known to interact with this stock, and bycatch in foreign fisheries is often unreported or data are not available, making the estimated M/SI an underestimate.

Hawai'i humpback whale stock

NMFS evaluated the Hawai'i DPS identified under the ESA as a potential stock under the MMPA and found strong lines of evidence (movements and genetics) that indicate the Hawai'i DPS contains at least two units: the Hawai'i-southeast Alaska/northern British Columbia DIP (Hawai'i-SEA/NBC DIP) and the Hawai'i-North Pacific unit (Hawai'i-NorPac unit) (Wade *et al.* 2021). There may be sufficient data to delineate further DIPs within the Hawai'i -NorPac unit, but the photographic data have

not been fully stratified in the way required to evaluate additional putative DIPs (Wade *et al.* 2021). Given the lack of a current abundance estimate for the Hawai'i-NorPac unit and spatial information on this unit in Hawaiian waters, there is no clear conservation benefit to splitting the humpback whales that belong to the Hawai'i DPS into two MMPA stocks. Thus, the humpback whales that belong to the Hawai'i DPS identified under the ESA are proposed to comprise a single stock under the MMPA (81 FR 62259, September 2016).

The proposed Hawai'i humpback whale stock (contained in the Alaska SAR) includes the Hawai'i DPS of humpback whales (81 FR 62259, September 2016). Wade *et al.* 2021), which is not listed under the ESA. The proposed Hawai'i stock of humpback whales does not include whales from any listed DPSs and, therefore, would not be considered depleted nor strategic under the MMPA due to its ESA status. It would also not be strategic because total annual human-caused M/SI (19.6) does not exceed the proposed stock's PBR (127). The draft SAR presents a new estimate of abundance that was derived from a species distribution model and represents the peak abundance of humpback whales around the main Hawaiian Islands during 2020 (Becker *et al.* 2022). Because the estimate is derived from the model output for a specific one-month time period, this may under-represent the full abundance of whales that overwinter in the region because individual whales may not have a very long residence time in Hawai'i.

Mexico-North Pacific and Mainland Mexico - CA-OR-WA humpback whale stocks

NMFS evaluated the ESA-listed Mexico DPS as a potential stock under the MMPA and found strong lines of evidence (movements and genetics) for two units within the Mexico DPS: a DIP composed of whales that winter in the waters off mainland Mexico (MMex) and summer off of the contiguous U.S. West Coast, referred to as the MMex-CA/OR/WA DIP (Martien *et al.* 2021), and a unit of humpback whales that winter in mainland Mexico and the Revillagigedo Archipelago and summer in more

northerly waters (mainly in Alaska and to a lesser extent in Russia), referred to as the Mex-NPac unit (Martien *et al.* 2021). Available movement data suggest the existence of multiple DIPs within the Mex-NPac unit, but the photographic data have not been stratified in the way required to formally evaluate additional putative DIPs (Martien *et al.* 2021). NMFS evaluated the conservation and management benefits and risks associated with managing these humpback whales and determined that managing these two units as separate stocks under the MMPA provides greater potential conservation benefit than managing them as a single stock that contains the entire DPS. Thus, the humpback whales that belong to the Mexico DPS are proposed to comprise two stocks under the MMPA: the Mex-NPac stock and the MMex-CA-OR-WA stock.

The proposed Mex-NPac humpback whale stock (contained in the Alaska SAR) includes the portion of the humpback whales from the Mexico DPS that winter in mainland Mexico and the Revillagigedo Archipelago and mainly summer in Alaska and to a lesser extent in Russia (Bettridge *et al.* 2015, Martien *et al.* 2021). The Mexico DPS is listed as threatened under the ESA; and, therefore, the proposed Mex-NPac humpback whale stock would be considered depleted and strategic under the MMPA. The minimum population estimate for the stock is considered unknown; and, therefore, PBR is undetermined. The annual human-caused M/SI in U.S. waters is estimated to be 0.56 whales.

The proposed MMex-CA-OR-WA humpback whale stock (contained in the Pacific SAR) includes the portion of the humpback whales from the Mexico DPS that winter in the waters off mainland Mexico and summer off of the contiguous U.S. West Coast (Bettridge *et al.* 2015, Martien *et al.* 2021). The Mexico DPS is listed as threatened under the ESA; and, therefore, the proposed MMex-CA-OR-WA humpback whale stock would be considered depleted and strategic under the MMPA. The draft SAR presents a new estimate of abundance derived from the difference between the mark-

recapture estimate for humpbacks off the U.S. West Coast (Calambokidis and Barlow 2020) and the Central America/Southern Mexico- CA-OR-WA humpback whale stock (Curtis *et al.* 2022). The estimated annual human-caused M/SI is 30.7 humpback whales, which does not exceed the proposed stock's PBR (32.5).

Central America / Southern Mexico - CA-OR-WA humpback whale stock

NMFS evaluated the ESA-listed Central America DPS as a potential stock under the MMPA and found strong lines of evidence (movements and genetics) that the Central America DPS contains a single DIP: the Central America/Southern Mexico-CA/OR/WA (CenAm/SMex-CA/OR/WA) DIP (Taylor *et al.* 2021). Thus, the humpback whales that belong to the Central America DPS identified under the ESA are proposed to comprise a single stock under the MMPA.

The proposed CenAm/SMex-CA-OR-WA humpback whale stock (contained in the Pacific SAR) includes the Central America DPS of humpback whales, which is listed as endangered under the ESA (Bettridge *et al.* 2015, Taylor *et al.* 2021) and would, therefore, be considered depleted and strategic under the MMPA. The draft SAR presents a new estimate of abundance derived from spatial capture-recapture methods based on photographic data of whales wintering in southern Mexico and Central America between 2019 and 2021 (Curtis *et al.* 2022). The estimated annual human-caused M/SI is 18.4, which exceeds the proposed stock's PBR (2.6).

Alaska Reports

NMFS reviewed new information for 35 existing stocks (including all of the strategic stocks) in the Alaska Region and updated information or developed new reports for nine stocks under NMFS' jurisdiction: four strategic stocks (Southern Southeast Alaska Inland Waters harbor porpoise, Western North Pacific humpback whales, Mexico-North Pacific humpback whales, and Western Arctic bowhead whales) and five non-strategic stocks (Eastern Bering Sea beluga whales, Eastern North Pacific Alaska

Resident killer whales, Northern Southeast Alaska Inland Waters harbor porpoise, Yakutat/Southeast Alaska Offshore Waters harbor porpoise, and Hawai‘i humpback whales). A list of the new or revised SARs in 2022 for the Alaska region is presented in Table 1, followed by a summary of the more notable revisions for particular stocks within the Alaska region aside from humpback whales (see above). Information on the remaining Alaska region stocks can be found in the final 2021 SARs (Muto *et al.* 2022).

Table 1 -- List of Marine Mammal Stocks in the Alaska Region Revised in 2022

Strategic Stocks	Non-Strategic Stocks
<ul style="list-style-type: none"> ● Bowhead whale, Western Arctic* ● Harbor porpoise, Southern Southeast Alaska Inland Waters† ● Humpback whale, Mexico- North Pacific† ● Humpback whale, Western North Pacific† 	<ul style="list-style-type: none"> ● Beluga whale, Eastern Bering Sea* ● Killer whale, Eastern North Pacific Alaska Resident* ● Harbor porpoise, Northern Southeast Alaska Inland Waters† ● Harbor porpoise, Yakutat/Southeast Alaska Offshore Waters† ● Humpback whale, Hawai‘i†

*Includes updated abundance estimates.

† Denotes a new stock.

Southeast Alaska harbor porpoises

The Southeast Alaska harbor porpoise stock is proposed to be split into three stocks, all contained within one SAR: the Northern Southeast Alaska (N-SEAK) Inland Waters, Southern Southeast Alaska (S-SEAK) Inland Waters, and Yakutat/Southeast Alaska (Y-SEAK) Offshore Waters harbor porpoise stocks. In revising stock structure, NMFS followed the process outlined in its procedural directive 02-204-03: Reviewing and Designating Stocks and Issuing Stock Assessment Reports under the Marine Mammal Protection Act (NMFS 2019). Multiple lines of evidence (genetics, trends in abundance, and discontinuous distribution) supported delineation of two DIPs within the inland waters of southeast Alaska. Until additional information is available to evaluate potential structure within the offshore waters, the remaining harbor porpoise offshore in southeast Alaska were grouped into a single unit (Zerbini *et al.* 2022). NMFS evaluated

the conservation and management benefits and risks associated with managing these harbor porpoise and determined that managing the two DIPs and single unit as separate stocks under the MMPA provides greater potential conservation benefit than managing them as a single stock. Thus, the Southeast Alaska harbor porpoise stock is proposed to be split into three stocks corresponding with the DIPs and unit identified in Zerbini *et al.* (2022). The draft SAR presents abundance estimates for the proposed N-SEAK and S-SEAK harbor porpoise stocks, derived from a vessel survey in 2019. A current abundance estimate is not available for the proposed Y-SEAK stock.

The draft SAR includes a reassessment of human-caused M/SI to reflect the new proposed stock boundaries. The annual human-caused M/SI estimated for the proposed N-SEAK Inland Waters stock (5.6) does not exceed the calculated PBR (13). Also, the N-SEAK Inland Waters stock is not designated as depleted under the MMPA nor listed as threatened or endangered under the ESA. Therefore, the N-SEAK Inland Waters stock of harbor porpoise is not classified as a strategic stock.

The annual human-caused M/SI estimated for the proposed S-SEAK Inland Waters stock (7.4) exceeds the calculated PBR (6.1); therefore, the stock would be considered strategic. However, the S-SEAK Inland Waters stock is not designated as depleted under the MMPA nor listed as threatened or endangered under the ESA. A current abundance estimate for the proposed Y-SEAK stock is not available.

Beluga whale, Eastern Bering Sea stock

NMFS withdrew the final 2020 EBS beluga whale SAR to allow for consultation with NMFS co-management partner, the Alaska Beluga Whale Committee, and is subsequently revising the SAR in 2022. The revised report contains an updated best estimate of abundance, derived from a 2017 aerial line-transect survey and corrected for various biases, of 12,269 beluga whales. This is an increase from the 2000 estimate of 6,994, which was considered to be an underestimate. Other sources of potential negative

bias may still affect the estimate but additional information is necessary for further refinement. The estimated annual human-caused M/SI (227) is less than the calculated PBR (267). Also, the Eastern Bering Sea stock is not designated as depleted under the MMPA nor listed as threatened or endangered under the ESA. Therefore, the Eastern Bering Sea stock of beluga whales is not classified as a strategic stock.

Atlantic Reports

In 2022, NMFS reviewed all stocks in the Atlantic region for new information (including the Atlantic Ocean, Gulf of Mexico, and U.S. territories in the Caribbean) under NMFS' jurisdiction and revised reports for 11 stocks (Table 2). Since the time the previous SAR was published for the Northern Gulf of Mexico Stock of Bryde's whale, the stock has been recognized as a distinct species known as Rice's whale, (*Balaneoptera ricei*) (Rosel *et al.* 2021) and its ESA species designation has been updated (86 FR 47022, DATE). Therefore, the Northern Gulf of Mexico Bryde's whale SAR has been updated to reflect the name changes and is now the Northern Gulf of Mexico Rice's whale SAR. The remaining revisions to SARs in the Atlantic region consist primarily of updated abundance estimates and revised human-caused M/SI estimates for common bottlenose dolphin stocks. Eight Western North Atlantic common bottlenose dolphin stocks changed from "strategic" status to "non-strategic." A list of the new or revised SARs in 2022 for the Atlantic region is presented in Table 2, followed by a summary of the more notable revisions for particular stocks within the Atlantic region. Information on the remaining Atlantic region stocks can be found in the final 2021 SARs (Hayes *et al.* 2022).

Table 2. List of marine mammal SARs in the Atlantic region revised in 2022.

Strategic Stocks	Non-Strategic Stocks
<ul style="list-style-type: none"> North Atlantic right whale Rice's whale (previously Bryde's whale) 	<ul style="list-style-type: none"> Common bottlenose dolphin, Northern South Carolina Estuarine System Stock* Common bottlenose dolphin, Charleston Estuarine System Stock

	<ul style="list-style-type: none"> ● Common bottlenose dolphin, Northern Georgia/Southern South Carolina Estuarine System Stock ● Common bottlenose dolphin, Central Georgia Estuarine System Stock ● Common bottlenose dolphin, Southern Georgia Estuarine System Stock ● Common bottlenose dolphin, Jacksonville Estuarine System Stock ● Common bottlenose dolphin, Indian River Lagoon Estuarine System Stock* ● Common bottlenose dolphin, Biscayne Bay Stock ● Common bottlenose dolphin, Florida Bay Stock
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*Includes updated abundance estimates

North Atlantic right whale, Western North Atlantic

The new abundance estimate calculated for the western North Atlantic right whale stock is 338 individuals, which is a decrease from the previous estimate of 368 individuals contained in the final 2021 report. This updated estimate is based on a published state-space model of the sighting histories of individual whales identified using photo-identification techniques (Pace *et al.* 2017, Pace 2021). It reflects the overall low reproductive rate of the species and the impacts of the ongoing Unusual Mortality Event declared in 2017 (NMFS 2022), which, for the covered time period, includes 78 dead, seriously injured, or sub-lethally injured or ill whales (*i.e.*, morbidity cases, which are now included in the SAR for the first time) primarily due to vessel strikes and entanglements in fishing gear.

Pacific Reports

In 2022, NMFS reviewed all 85 stocks in the Pacific region (waters along the U.S. West Coast, within waters surrounding the main and Northwestern Hawaiian Islands, and within waters surrounding U.S. territories in the Western Pacific) for new information, and revised SARs for five stocks (four strategic and one non-strategic). A list of revised SARs in 2022 for the Pacific region is presented in Table 3. Information on the remaining

Pacific region stocks can be found in the final 2021 SARs (Carretta *et al.* 2022).

Following development of the draft 2022 SARs, NMFS published new population information for the Eastern North Pacific (ENP) gray whale. As a result, we plan to revise the ENP gray whale SAR in the 2023 cycle to incorporate the updated information.

Table 3 -- List of Marine Mammal SARs in the Pacific Region Revised in 2022

Strategic Stocks	Non-Strategic Stocks
<ul style="list-style-type: none">• Killer whale, Eastern North Pacific Southern Resident*• Hawaiian monk seal*• Humpback whale, Central America / Southern Mexico - CA-OR-WA†• Humpback whale, Mainland Mexico - CA-OR-WA†	<ul style="list-style-type: none">• Cuvier's beaked whale, California/Oregon/Washington

*Includes updated abundance estimates

† Denotes a new SAR

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Dated: January 18, 2023.

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